

Justin Tsai

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EXPERIENCE

CPP Virtual Reality Lab

Pomona, CA

Administrator (Paid-position)

Aug 2018 - Present

- Lead and manage groups of students to develop VR/AR projects for presentation to industry sponsors.
- Mentor students by hosting workshops and code reviews to teach students basic Unity development.
- Work with lab equipment (HTC Vive Pro, Oculus Rift, and Microsoft HoloLens) and handle checkout of equipment to lab members.

EDUCATION

California Polytechnic University, Pomona

Pomona, CA

Bachelor of Science, Computer Science

May 2019

GPA: 3.55, Dean's List all quarters

PROJECTS

Spellbreaker VR

C#, Unity

- Currently developing a single player VR hack and slash game. The player will have to cut through a flurry of magic projectiles aimed at them using their swords.

Isolation

Java

- Created a player vs computer console game coded in Java. The player has to outmaneuver the computer by trapping it with previously made moves.
- Implemented a min-max algorithm utilizing alpha-beta pruning with iterative deepening that the computer uses as a heuristic to make its moves.

VR Wildfire

C#, Unity

- Worked on an existing VR research project that simulates the player being caught in a wildfire. The project records the users actions in that scenario and the time taken to perform them.
- Debugged errors by analyzing and rewriting existing code from scripts.

Self-Driving Car

Arduino

- Collaborated in a team of 5 to develop a self-driving car with line tracking and obstacle avoidance.
- Implemented script for obstacle avoidance and wrote documentation.

VR Combination and Permutation

C#, Unity

- Collaborated in a team of 3 to develop a VR research project that tests the player's understanding of math concepts in an escape-room environment.
- Implemented scripts for player movement, controls, audio, and environment interactions.

SKILLS

- **Languages:** Java, C#, HTML, CSS, Javascript, Python, C++
- **Tools:** Unity, Visual Studio, Eclipse, NetBeans, Github Desktop, PuTTY, Android Studio